

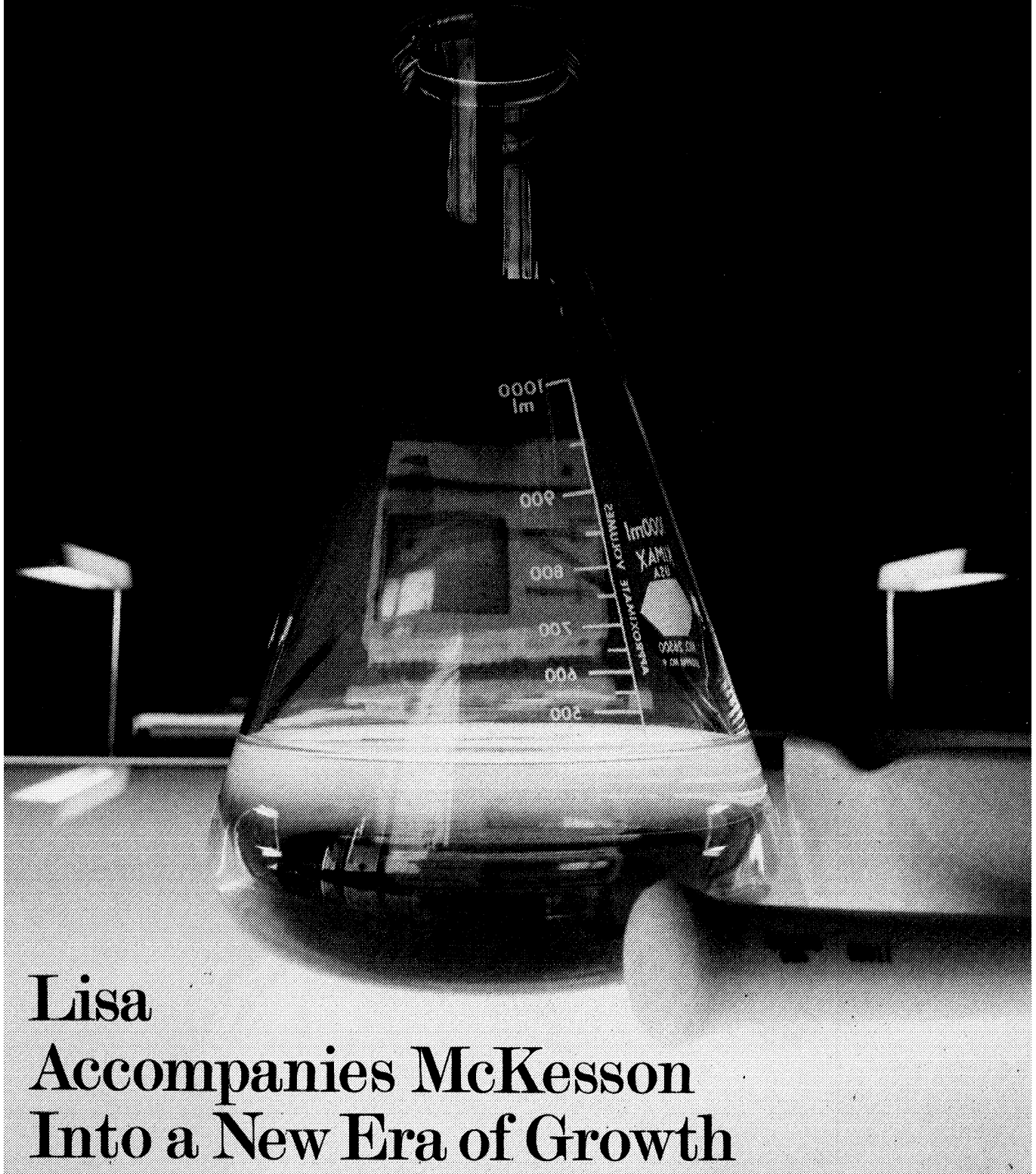
Apple Lisa Computer Technical Information



Apple Lisa Computer: McKesson Company and Lisa (St. Mac • March 1984)

🍏 Apple Lisa Computer
Technical Information

LOOKING GOOD!



Lisa
Accompanies McKesson
Into a New Era of Growth

BY MATT YUEN

Lesson one of business basics: Make as much money as possible while spending as little as possible. Chapter one of that lesson says to give customers what they need at a price they'll pay.

Inside a thirty-seven-story building at the corner of Post and Market streets in San Francisco, McKesson Corporation is doing the quiz at the end of chapter one. One of the questions on the quiz is "How does a 150-year-old corporation use technology to increase productivity?" McKesson wrote on the answer sheet: Computers.

Having established itself as one of the nation's leaders in marketing, McKesson feels that its biggest challenge is to increase productivity. In meeting that challenge, McKesson is finding ways to deliver its goods and services to customers quicker and at lower cost. In all of McKesson's distribution businesses (drugs, chemicals, liquors), computers are clearing the way toward that goal.

Big mainframes handle the data processing, electronic order-entry, and computerized delivery schedules. But there are some tasks in every corporation that the giant computers just can't handle. For the little things that have big effects, for the small tasks that a large tool can't handle, there are microcomputers. And at McKesson, the new microkid swiping all the attention away from the veteran IBM PCs is Lisa.

They Needed Each Other

The teaming of McKesson with Lisa was a two-way effort. It started back in September 1982, when some of McKesson's upper-level managers were invited to a sneak preview of Lisa. Apple was considering a variety of corporations as potential beta test sites for Lisa. At the same time, McKesson Drug was looking for something that would give them the graphics capabilities they needed for publications and presentation material.

"We looked at the market," says Leslie Mastalarz, editor of sales publications, "and there wasn't anything on large computers that could do what we wanted. There were some packages that would produce a graph or a chart; and at the other end of the spectrum were the very expensive CAD systems." Other than Lisa, there wasn't anything on low-end computers that offered the friendly graphics system McKesson needed.

From the front door of the McKesson building, one need walk no more than a block or two in any direction to find at least a dozen other corporations that could use Lisa effectively. To understand why Apple picked McKesson as a beta site, take a look at what makes it one of the nation's leading wholesale distributors.

Time To Reorder Cat Mouthwash

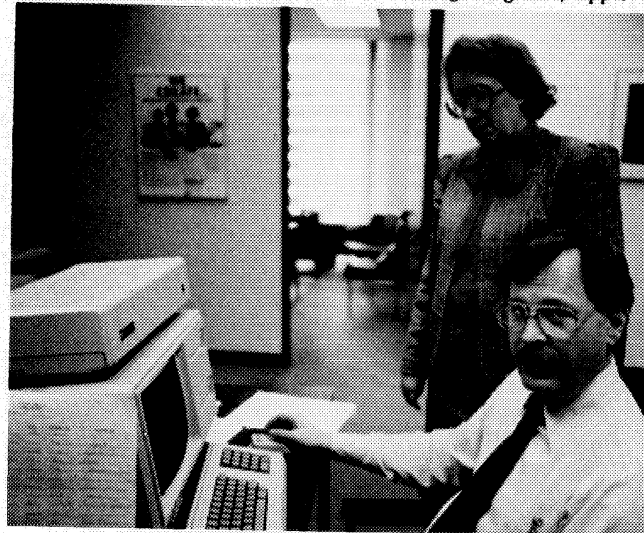
Go into almost any chain retail drugstore and look at the drug shelf labels. They have the names of the products on the shelf, some odd-looking numbers, and maybe a computer bar code. Those labels are McKesson Drug's way of computerizing the task of taking inventory. Instead of having to look at and count each item in the store, a clerk can just scan the shelves with a hand-held Econoscan, a device that figures out how many of each item should be ordered. In addition, stores can use Econotone, a system that allows them to transmit orders directly to McKesson Drug's computer center via Touch-Tone telephone.

Two of McKesson Drug's newest services to retailers are Econoclain and Econoprice. Econoclain is a computerized program that helps pharmacists speed up the process of preparing prescription

claims that need to be sent to state agencies or insurance carriers for third-party reimbursement. Econoprice is a service that helps pharmacists implement pricing strategies for prescription medications.

Two things happened to McKesson as a result of its elaborate computerized services' success; its wholesaler share of the pharmaceutical market grew to more than 50 percent, and it got the company noticed by Apple as a possible testing site for Lisa.

McKesson Drug's use of computers in retail drugstores was an innovative electronic order-entry system. Recognizing that, Apple



Who's watching whom? Technical support manager Kent Johns monitors McKesson Drug's electronic order entry system, while Leslie Mastalarz appears to be monitoring Johns.

approached McKesson Drug's sales department and said, in essence, "You're the kind of computer people who would be able to take big advantage of Lisa."

Apple's sales pitch wasn't necessary. By the time Apple asked the company to be a beta site, Mastalarz had long been considering implementing personal computers in the sales department. Two Lisas were installed, and a third was added shortly after.

Lisa fever spread through the drug company's sales department; other department managers saw the kinds of things Mastalarz was doing with *LisaWrite* and *LisaDraw*, and jaws hit the floor. They recognized immediately the kinds of charts, graphs, and presentation materials they could create with Lisa.

When you have something like Lisa that's possibly the most fun office tool since the push-button telephone, word gets around fast. McKesson bought some more. And then it bought some more again. Today, McKesson Corporation has nine Lisas, including one at its pharmaceutical card services department in Phoenix.

There Wasn't Always Air Conditioning, Either

With the sales department's Lisas bogged down from 6:30 a.m. to 6:30 p.m., it's hard to imagine how things ever got done there without them. Mastalarz points out that nothing new is being created

with Lisa; it's the same material they've always produced, but it looks better and is generated faster.

Mastalarz understates the changes Lisa has made in the sales department. For example, in the old days, sales management would draw diagrams of ongoing projects about once a year, usually at the midpoint, to show how much progress had been made and how far there was to go. Decisions on when various phases of a project were to begin were made mostly on the gut level. Not anymore.

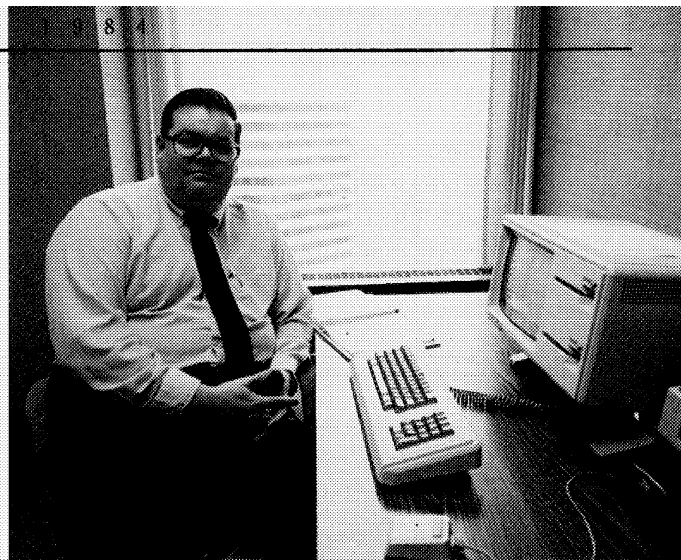
"With *LisaProject*," says Mastalarz, "we're inclined to diagram projects up front to justify programming expenditures, plot time frames, and show when certain programs are to go into effect. Now we submit a project to the boss, and if he approves it, the project diagram is photocopied and included on correspondence; we're substantiating things more."

And *LisaProject* is the program McKesson Drug uses the least. *LisaWrite* and *LisaDraw* are used the most, and they're probably appreciated the most, too. One of the first tasks Mastalarz tackled was getting rid of loose pieces of paper that sales representatives had to carry from store to store.

Ten different services meant ten different contracts that sales reps had to keep organized. In addition to contracts, there was a load form (a form containing customer data that the sales rep hands over to McKesson for data entry) that had to be completed for each customer. Fumbling with separate sheets of paper for each service a pharmacist might want to buy (and risking the embarrassment of dropping everything onto the floor) is something Mastalarz wanted to help representatives avoid. The way to do this was to combine load forms and contracts into one pack. It was a noble idea; the typewriter, scissors, and tape were standing at attention, ready for work.

Lisa, the Miracle Drug

At the end of a week, Mastalarz had completed two contracts. Working at that rate meant the entire task would take just over a



Number-cruncher Dave Malmberg sits content with his Lisa.

month. Then came Lisa. "Four or five hours." That's how long it took Mastalarz to combine ten contracts into one consolidated contract, with the load form included.

With Lisa's dot-matrix copy in hand, Mastalarz could either duplicate the copy of the contract for use in the field or send the copy to a typesetter, who would retype everything and produce a sharper-looking version. An even better approach would be to connect Lisa directly to a typesetting machine to produce a contract of typeset quality. That's exactly what Mastalarz does now.

Last October, Compugraphic introduced its Personal Composition System, a package that consists of a Compugraphic output unit, the Lisa, and software. McKesson Drug was already using a Compugraphic unit for its in-house typesetting, and when Mastalarz found out that she could interface the Lisa with one, she knew it was just what the department needed.

"Being able to get typeset output of Lisa files means I don't have to worry about a typesetter keying information incorrectly," says Mastalarz. "I know that each word and number is correct, and that it will be that way when it comes out of the Compugraphic unit."

Before getting the Lisas, Mastalarz typed portions of contracts and sent them to a typesetter, who retyped them and turned out the final versions to be printed. A sample contract that took a few minutes to create with *LisaDraw* and just eight seconds to print with the Compugraphic system would have cost between sixty and eighty dollars if it had been sent to an outside typesetter. Because of the time and money involved, McKesson often sidestepped going to a typesetter entirely. With the Compugraphic system, the sales department will be able to produce typeset-quality reports quicker and cheaper.

"A key feature of the Compugraphic system is that I can print letterings in different colors," says Mastalarz. If she wanted certain parts printed in red, normally she would send the typeset copy to the printer for color separations. With the Compugraphic system, Mastalarz just cuts out the fields that are to be in color, holds them on the Lisa clipboard, and sends the rest of the copy through the Compugraphic unit. Then she brings back what's on the clipboard and sends that through.

"When we send out the two pieces of repro, we've done most of the printer's work already," she explains.

Thank You, Mr. Gutenberg

Some McKesson Drug employees who benefit significantly from Lisa probably aren't even aware of its existence; they're the drug force in the field. The bulletins that these sales reps receive from the sales department show how well (or not-so-well) various promotions are working out. To the drug force, they're the business bible; Lisa helps write the scriptures.

In the B.L. days (before Lisa), reports were divvied up among

several secretaries who would work on one or two apiece. Alice Faith Ray was one of the laborers in those days. Using calculator and typewriter, she would button-push and key-tap away to get her share of the work done in two and a half to three weeks' time.

Today, Ray generates all sales bulletins in a book form herself, and the only pushing and tapping she does is with a mouse and keyboard. Total time required: eight days. And most of that time is spent checking with regional offices to make sure figures are correct. Sometimes Ray receives the wrong information, or prices for certain products change. With Lisa, it means pulling up the old file, correcting the information, and printing out a new copy (ugh). In the B.L. days, that meant having to retype the entire document (ugh, ugh). Clearly, one ugh is better than two.

For the drug force, receiving sales bulletins in less than half the time it took before means dollar volumes are more up to date.

The only problem with Lisa, says Ray, is that it creates a paradox.

That the machine speeds up work is without question; but when managers see how fast things are being done, they want to pile more work into the "in" basket. "With such a powerful machine, it puts pressure on you to take complete advantage of it," says Ray. Unfortunately, "management isn't fully aware of its limits."

Henry Ford's workers might have felt the same way; the work is easier, but there's a lot more of it.

Selling services is one way McKesson plans to grow during the next few years. The other way is by buying companies and making them a part of McKesson—something that the corporation has been practicing, with varying success, for quite some time.

The Bumpiest Milk Route in the World

McKesson & Robbins merged with Foremost Dairies in 1967 to become Foremost-McKesson. The merged companies' early years were shaky, to say the least, looking more like a corporate version

Typesetting on Lisa with the Personal Composition System

Lisa's dot-matrix output is pretty good. It's not as sharp and detailed as the print in this magazine, but it's miles ahead of most other microcomputer output. However, it's still dot-matrix output. Now Compugraphic Corporation, the world's largest supplier of hardware and software for computerized typesetting systems, has developed a system that enables Lisa to produce typeset copy every bit as attractive as that prepared by a professional typesetting house.

The Personal Composition System (PCS) includes Apple's Lisa, a Compugraphic typesetting machine, and driver software to accept Lisa's input. Just think of the typesetting device as a super fancy souped-up printer and you'll have an idea how PCS works. Anything you can create on Lisa, including graphics, can be "printed" through the Compugraphic system on photographic paper.

In late 1982, Compugraphic saw what the Lisa could do with graphics and recognized immediately its potential to change the way reports, proposals, contracts, letters, and other written communication were produced. Compugraphic studied Lisa and explored ways to integrate it with the company's typesetting equipment. Phone calls were made, letters written, and lunches eaten. When the dust settled, Compugraphic had signed a contract to buy \$20 million worth of Lisas and software over the next two years.

"Apple doesn't know what it did," says Compugraphic representative Mike Malcuit, referring to the effect Lisa graphics will have on typesetting. "We expect Lisa to transform the typesetting industry drastically. People in the business go crazy when they see what PCS can do."

Who can use a system like this? "Everyone," says Compugraphic account executive

Dianne Capps. "The Personal Composition System can be used effectively for anything that needs to be produced in quantities of two or more." In other words, PCS will come in handy for law firms, engineering departments, sales and marketing organizations, accounting firms, and any other businesses that need professional-looking written or graphic information.

That's a broad group, and Compugraphic recognizes that. When it needed beta testers for PCS, it chose as wide a variety of companies as possible. During the early stages, Compugraphic asked its testers what kinds of things they were doing with the system, expecting them to pull out a bunch of charts and graphs created with *LisaGraph*. Instead, the testers pulled out schematic diagrams of electrical circuits, computer program flow charts, street maps, and artistry far beyond what Compugraphic had expected—everything *but* charts and graphs.

The feedback has been encouraging; orders for PCSs have been placed by such companies as Bechtel, Boeing, Safeway, Standard Oil, and Crocker Bank.

Mike Malcuit praises PCS's contribution to business graphics. "Normally, a company will have a large composition center or outside graphics firm do whatever work it needs," says Malcuit, "but sometimes deadlines can't be met when you have to send things out to be done. What do you do when you need a bar chart by Friday morning, and it's already Thursday afternoon? You do without. All the executive needs is an easy way to convert numbers to graphs.

"With PCS, graphic artists can get back to doing things the way they used to do them—as an artist does them. It's the artist who can take a regular chart and pull out

the things that make it talk.

"At Bechtel I met a graphic artist who had never run a machine in her life. With Lisa, now she's making 3-D horizontal bar charts, things that she didn't think were possible."

The Personal Composition System is available with a choice of three typesetting machines: the 8216, which generates output at fifteen characters per second, the 8400 (125 characters per second), and the 8600 (225 characters per second). Most customers choose the 8400 system, which goes for \$39,995. The 8216 and 8600 systems are priced at \$26,895 and \$61,795 respectively.

Later this year, PCS will be configured with an electronic, or nonimpact, printer, which will allow users to create output directly on sheets of paper in multiple copies, thus sidestepping the photochemical process now performed by the typesetting machine. Additionally, a summer release of software will add capabilities now missing from PCS: the ability to print from a selection of Compugraphic's own typefaces (current PCS setups are limited to using only the type styles and sizes available in *LisaWrite*), better screen resolution, and full text-and-graphics merge capability. Multiple columns, true hyphenation and justification of text (a feature of typesetting systems that is lacking in Lisa), proportional spacing, and a wider range of point sizes will make PCS more suitable for setting large amounts of body text. Compugraphic plans a no-charge upgrade to the new software for current owners of PCS systems.

If the Personal Composition System becomes as widespread as Compugraphic envisions, it will become the next office automation tool, as commonplace as the photocopy machine is today.

of a boat drill than a business merger. Foremost-McKesson's operating units were left to fend for themselves, slowly losing their grip on respective market shares. Top-level executives spent most of their time seeking out new companies to acquire, only to chuck them into the bottom drawer with little effort to integrate them with the rest of the company.

Things turned around in 1976 when Foremost-McKesson began trimming the fat and getting back to the distribution business that made it a powerhouse back at the turn of the century. Slow-growing businesses with small profit margins were dropped in favor of those offering a prosperous future. The company was on its way to becoming a lean, mean business machine.

Corporate acquisition wasn't entirely eliminated from Foremost-McKesson's game plan. However, it was limited by the Federal Trade Commission in 1967, when the FTC threw a decree in Foremost-McKesson's face requiring it to get approval from the FTC before it acquired any drug-related companies.

In March 1983, that decree was lifted, opening up a whole new area for strategic planning. Ironically, one of the first things the corporation did was divest the Foremost dairies and sell its own foods group, which led to dropping the Foremost part of its name.

Over the next few years, a lot of McKesson's growth will come from expanding its current moneymakers—drug and health care, wine and spirits, and chemicals. Whenever McKesson makes corporate acquisitions, board chairman Neil Harlan and chief executive officer Thomas Drohan are the names that usually appear in the media. But the person doing all the legwork and number crunching is David Malmberg, director of new technologies.

Besides, a Calculator Can't Draw

Malmberg is well-equipped to handle the seven- and eight-figure sums that are at the root of McKesson's buying and selling decisions. The survival pack includes two Lisas, two IBM PCs, *LisaCalc*, *LisaDraw*, *LisaWrite*, *VisiCalc*, and Lotus Development's *1-2-3*. Malmberg,

who considers Lisa to be an alternative to the IBM PC, rather than a replacement, prefers Lisa because "it provides a very personal, friendly environment to work in."

"Coming from Dave," says Mastalarz, "that's a very high compliment. Dave sits on boards of software companies and tells them in a down-to-earth manner what's good and what's bad. For him to call Lisa 'user-friendly' is extremely complimentary."

Evaluating prospective acquisitions isn't much different from figuring out which car to buy. After deciding that you need a new car, you'd look at manufacturers, compare mileage ratings, and make sure the car matches your image. In McKesson's case, Malmberg tries to find the answers to such questions as: Who are the major companies in a specific industry? If it's a public company he's considering, what is its price-to-earnings ratio? What kind of market does it serve? Is it consistent with McKesson's interests? Who are the competitors?

After all facets have been analyzed, Malmberg takes to the board of directors what he thinks is an attractive candidate for acquisition and recommends it, along with what he considers to be a reasonable price.

Analyzed, thinks, recommends, considers, and reasonable. They're all words that imply judgment—judgment that's usually preceded by the examination of conditionals that start out, "What if...." Calc city.

Even though much of Malmberg's analysis involves comparing potential dollars spent against potential profits, *LisaCalc* isn't the software he uses the most. On the contrary, it's *LisaDraw*. When all the number crunching is done, Malmberg needs something to illustrate the results of his work; that's where *LisaDraw* comes in. So far, like everyone else, he's been working with Lisa's dot-matrix printout. With the Compugraphic-Lisa setup, he'll be able to get presentation-quality output and get it faster.

Still Can't Beat Rush Hour, But....

Before getting Lisas, Malmberg built his financial models with



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It used to take several secretaries to turn out the sales bulletins and reports that Alice Ray now does by herself with LisaWrite and LisaCalc.

VisiCalc on the IBM PC. Now he prefers to use *LisaCalc*, but not because it helps him work faster.

"Lisa still hasn't sped up the work that much," Malmberg says. "I still spend about the same amount of time; it's a matter of thinking time versus computing time." Nonetheless, he often chooses Lisa because it's easy to use, and just in case he needs to use *LisaDraw*. Being able to go directly to *LisaDraw* cuts the additional time and personnel needed to prepare diagrams and graphs. In the old days, Malmberg would give the art department a rough idea of what he needed and then an artist would create it. Now he's the artist.

Releasing McKesson from having to seek FTC approval before buying drug-related companies is almost like letting a teenager loose in a record store with a credit card. Not that McKesson is going on a reckless shopping spree, but it can shop more freely, without having to run to the FTC saying, "Mom, is it okay if I buy this?"

New buying freedom means more activity for Malmberg. McKesson is acquiring companies that produce pet supplies, first-aid kits, cosmetics, and other products found in retail drugstores. Its goal is for drugstore managers to think of McKesson Drug first whenever they need something. With a tall order like that to fill, Malmberg will be quite busy.

While Malmberg scans the outside world, looking for ways to increase McKesson's hold on the middleman market, two other people look inside the corporation, helping to find ways to maximize growth. John Billington, manager of corporate planning, and Eli Ortega, manager of strategic planning, spend a lot of time figuring out how McKesson spends a lot of its money.

It Was Pollen Season; Facial Tissues Profited

In financial planning, it's hard to know where to go unless you know where you've been. Billington and Ortega look a lot at where McKesson has been. These two are the ones responsible for bringing the board of directors up to date on where McKesson's money is going and what it's doing. Dollar volumes, growth rates, profit increases, and sales volumes are part of what they consider in their analysis. *LisaCalc* comes in handy, they say, but like Malmberg, they also recognize the program's limitations.

"We told Apple that we need a more complex modeling package within a spreadsheet," says Ortega. But he and Billington agree that all packages are a compromise in one aspect or another. Ultimately, they'd probably like to see something with 1-2-3's integration quality implemented on Lisa for its simplicity and presentation-quality output.

What it comes down to is the same old story: "Sure, we'd like to use the most powerful software available, but is having that power worth the time and money needed to create the graphics for board presentations?" Ortega thinks not.

"We prefer to go with Lisa for two reasons. First, its ease of use makes it simple for someone who's not a computer operator. Second, we can get graphics quality that's good enough for presentation without having to be retyped," says Ortega. "Dot-matrix output from the IBM PC isn't something you hand to the CEO. Lisa's output is also dot-matrix, but the quality is super for presentations."

The limitations imposed by software might not be a drawback to Lisa much longer; Macintosh is part of the answer. Billington is speculating on the possibility of adding Macintosh to the current setup, not necessarily because of the machine itself but because McKesson will be able to run Macintosh software; *Multiplan* comes to mind first.

Creating charts and graphs isn't as easy as Billington would like. It's simple to take data from *LisaCalc* and generate a graph with a few clicks of the mouse, and it's simple to enhance the graph by throwing it into *LisaDraw* and cleaning it up or adding art. The problem is that graphs enhanced by *LisaDraw* become *LisaDraw* documents; it's not possible to put them back into *LisaGraph*. This means that if more data is added to the original graph, the entire graph must be modified again, not just the new parts that were added after the graph was enhanced by *LisaDraw*.

Vitamin-Fortified Computer

Some of the words that crop up a lot when talking about McKesson are growth, expansion, increase, growth, prosperity, market leadership, growth, productivity, and growth. The drug and health care division, which spearheads the corporation's growth, accounted for more than half of McKesson's revenues during fiscal 1983.

With little doubt, Lisa plays an important role in many areas at McKesson. They're not the most visible areas, but they're important nonetheless. Whether it's making charts, writing contracts, keeping customers on database, or juggling numbers, Lisa is an integral part of McKesson's plans to grow.



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